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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,373	01/22/2002	Jiong Chen	AIBT 12K09	5885

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EXAMINER

HARRIS, ANTON B

ART UNIT	PAPER NUMBER
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2831

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/054,373	Applicant(s) CHEN ET AL.	
	Examiner Anton B Harris	Art Unit 2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-19 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Takeyama (5,218,209 cited by Applicant).

Regarding claim 1, Takeyama (col. 2, lines 44-67) discloses a movable chuck portion 1, a substrate 2, and an input source3).

Regarding claim 2, Takeyama (col. 2, lines 44-67) discloses that the substrate 2 comprises a silicon wafer having a diameter of at least about eight inches.

Regarding claims 3 and 7, Takeyama (col. 2, lines 44-67) discloses a substrate 2 and a movable chuck portion 1.

Regarding claim 4, Takeyama (col. 2, lines 44-67) discloses a split electrode electrostatic chuck 1.

Regarding claim 5, Takeyama (abstract) discloses a substrate 2 in a recess having a concave shape 1b.

Regarding claim 6, Takeyama (abstract) discloses a curvature of the substrate 2 selected from the group consisting of spherical, conical and cylindrical.

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Regarding claim 8, Takeyama (col. 2, lines 44-67) discloses a movable chuck portion 1, a substrate 2, and a stationary substrate-receiving portion 1b.

Regarding claim 9, Takeyama (abstract) discloses a curved stationary substrate-receiving portion 1b.

Regarding claims 10-15, Takeyama discloses a wafer 2, a chuck portion 1, and an input source 3, and a concave chuck portion (see figure 5).

Regarding claim 16, Takeyama (col. 2, lines 44-67) discloses a system comprising:

an input source (col. 2, lines 44-67),

a chuck system 1 having:

a substrate receiving surface 1b that receives the substrate 2 in an essentially non-deformed shape, and

a force applying portion 3, that applies an attractive force between the substrate 2 and the chuck system 1 that maintains the substrate 2 in a deformed shape.

Regarding claim 17, Takeyama (col. 2, lines 44-67) discloses an ion implantation source (abstract).

Regarding claim 18, Takeyama (abstract) discloses that the substrate-receiving surface 1b has a type of curve selected from the group consisting of spherical, conical, and cylindrical.

Regarding claim 19, Takeyama (abstract) discloses that the force-applying portion (col. 1, lines 10-12) includes a movable portion that moves with respect to the substrate-receiving surface 1b to change the substrate 2 from the non-deformed shape to the deformed shape.

Regarding claim 21, Takeyama (abstract) discloses a bent substrate 2 clamped to a recessed receiving portion 1b.

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3. Regarding claims 1-15 and 21, the methods disclosed therein are deemed as inherent in the assembly of the apparatus as claimed as fully met by the references Takeyama used in the rejections above and are subsequently rejected.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takeyama in view of Kubly et al.

Regarding claim 20, Takeyama (abstract) teaches that the force applied by the movable portion is selected from the group consisting of and mechanical force, but lacks that the force applied by the movable portion is selected from the group consisting of electrostatic force.

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Kubly et al. (abstract) discloses that the force applied by the movable portion is selected from the group consisting of electrostatic force.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Takeyama by providing that the force applied by the movable portion is selected from the group consisting of electrostatic force in order to cause a potential difference to build up in view of the teachings of Kubly et al.

Response to Arguments

6. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anton B Harris whose telephone number is (571) 272-1976. The examiner can normally be reached on weekdays from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Dean Reichard, can be reached on (571) 272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

abh

4/22/04


DEAN A. REICHARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800
3/22/04